

REMARKS

Claims 1–4 and 9–20 are currently pending in this application. Applicants appreciate the thorough examination as evidenced by the Final Action of October 7, 2011. In response, Applicant submits the present amendment and respectfully request entry of the claim amendments presented herein in view of the accompanying Request for Continued Examination, and further consideration of the present application in view of this amendment and the remarks provided below.

Support for Claim Amendments

The amendments presented above have been made to recite particular features of the inventions so as to expedite the prosecution of the present application to allowance in accordance with the USPTO Patent Business Goals (65 Fed. Reg. 54603, September 8, 2000). These amendments do not represent an acquiescence or agreement with any of the outstanding rejections.

Claims 19 and 20 are amended herein to more particularly point out what Applicants regard as the invention. New Claims 21 and 22 are added herein and directed toward a particular embodiment of independent Claims 1 and 14. Support for these amendments to the claims and new claims can be found in the application as originally filed, particularly at page 5, lines 5–9 of the specification and in Example 2 as shown in Table 5. The points raised by the Examiner are addressed hereinbelow.

Claim Rejections - 35 U.S.C. § 103

The Examiner continues to reject Claims 1–4 and 9–18 under 35 U.S.C. § 103(a) as being unpatentable over European Patent Application No. 92117883.6 (“Neumann et al.”). The reasons for maintaining this rejection are set forth by the Examiner, particularly at pages 5 and 6, in the Final Action. Applicants respectfully traverse this rejection.

A determination under § 103 that an invention would have been obvious to someone of ordinary skill in the art is a conclusion of law based on fact. *Panduit Corp. v. Dennison Mfg. Co.* 810 F.2d 1593, 1 U.S.P.Q.2d 1593 (Fed. Cir. 1987), *cert. denied*, 107 S.Ct. 2187. After the

involved facts are determined, the decision maker must then make the legal determination of whether the claimed invention as a whole would have been obvious to a person having ordinary skill in the art at the time the invention was unknown, and just before it was made. *Id.* at 1596. The United States Patent and Trademark Office (USPTO) has the initial burden under § 103 to establish a *prima facie* case of obviousness. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988).

As stated in the Examination Guidelines for Determining Obviousness, “the Supreme Court reaffirmed the familiar framework for determining obviousness as set forth in *Graham v. John Deere Co.*...” (Examination Guidelines for Determining Obviousness Under 35 U.S.C. 103 in View of the Supreme Court Decision in *KSR International Co. v. Teleflex Inc.* Federal Register Vol. 72, No. 195, 57526–57535, 57526). Hence, and as long established under that framework, to establish a *prima facie* case of obviousness, three requirements must be satisfied. First, the prior art relied upon, coupled with the knowledge generally available in the art at the time of the invention, must contain some **suggestion or incentive that would have motivated** the skilled artisan to modify a reference or to combine references. *In re Oetiker*, 24 U.S.P.Q.2d 1443, 1446 (Fed. Cir. 1992); *In re Fine*, 837 F.2d at 1074; *In re Skinner*, 2 U.S.P.Q.2d 1788, 1790 (Bd. Pat. App. & Int. 1986). Second, the proposed modification or combination of the prior art must have a **reasonable expectation of success**, determined from the vantage point of the skilled artisan at the time the invention was made. *See Amgen, Inc. v. Chugai Pharm. Co.*, 927 F.2d 1200, 1209, 18 U.S.P.Q.2d 1016, 1023 (Fed. Cir. 1991). Third, the prior art reference or combination of references **must teach or suggest all of the limitations of the claims**. *See In re Wilson* 424 F.2d 1382, 1385, 165 U.S.P.Q. 494, 496 (CCPA 1970) (“All words in a claim must be considered in judging the patentability of that claim against the prior art”).

As stated in *KSR Int'l Co. v. Teleflex Inc.*, “[a] patent composed of several elements is **not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art**” (emphasis added). *KSR Int'l Co. v. Teleflex Inc.*, 550 U. S. 1, 15 (2007). In *KSR*, the Supreme Court also made clear that predictable variations are likely obvious, but unpredictable variations are not:

If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability. For the same reason, if a

technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill. *Sakaida* and *Anderson's-Black Rock* are illustrative - a court must ask whether the improvement is more than the predictable use of prior art elements according to their established functions.

KSR at 1740.

The Court also recognized that when the prior art taught away from the claimed invention, the invention was more likely to be non-obvious: “when the prior art teaches away from combining certain known elements, discovery of a successful means of combining them is more likely to be nonobvious.” *KSR* at 1740 (citing *United States v. Adams*, 383 U.S. 39, 51-52 (1996)).

The Court also emphasized the importance of identifying “a reason” that a person of ordinary skill in the relevant field would have combined the elements in the fashion claimed by the new invention. *Id.* at 1731. The Court also emphasized that **this analysis should be made explicit**:

Often it will be necessary for a court to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue. To facilitate review, this analysis should be made explicit.

Id. at 1740–1741 (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)).

Furthermore, as set forth in the 2010 *KSR* Guidelines Update, regarding *In re Omeprozole Patent Litigation*, 536 F.3d 1361 (Fed. Cir. 2008),

“[e]ven though [a modification of a formulation] were known, and there was no evidence of undue technical hurdles or lack of a reasonable expectation of success, the formulation was nevertheless not obvious **because of flaws in the prior art formulation that had prompted the modifications had not been recognized** (emphasis added). Thus there would have been no reason to modify the initial formulation, even though the modification could have been done.

Moreover, a person of skill in the art would have chosen a different modification even if he or she had recognized the problem.”

2010 KSR Guidelines Update, Federal Register, Vol. 75, No. 169, at page 53646.

Applicants reiterate that the disclosures of Neumann et al. generally discuss a dispenser for controlled release of pheromones with two or more chambers so that two or more pests can be treated at the same time in a single work operation. (*see*, page 12, lines 6–8 of the translation of Neumann et al.). However, in order to affect controlled release of individual pheromones, Neumann et al. use the choice of dispenser shape of a **pheromone-impermeable** lower film and different (pheromone-permeable) upper films so that the release rates of the individual pheromones are coordinated with each other (*see*, page 12, lines 12–14 of the translation of Neumann et al.). Only the pheromone-permeable upper film is responsible for releasing the active ingredient. (*see*, page 11, lines 20 and 21 of the translation of Neumann et al.). Thus the dispenser of Neumann et al. clearly is not made entirely of the same material. Embodiments of the pheromone-impermeable lower film are described at page 11, lines 4–15 and Claim 5 of the translation of Neumann et al. Lastly, Applicants respectfully remind the Examiner that Neumann et al. clearly describe the disadvantages of sex pheromone dispensers wherein the chambers are made of the same material (*see*, page 4, lines 2–11 of the translation of Neumann et al.).

In view of the discussion above, Applicants therefore reiterate to the Examiner that the present invention, as set forth in the claims, is directed toward a sex pheromone sustained release dispenser comprising a first and second polymer chamber, each further comprising a polymer membrane, wherein the chambers and membranes are made of the same material and wherein the sex pheromone substances are released from the chambers at similar rates. Thus, in addition to not disclosing all the elements of that which is claimed, the disclosures of Neumann et al. clearly teach away from a sex pheromone sustained release dispenser wherein the upper and lower films, i.e., the chambers and membranes, are made of the same material, and wherein the release rates from the chambers are similar.

Nevertheless, Applicants submit a Declaration pursuant to 37 C.F.R. § 1.132 of Tatsuya Hojo (“the Hojo Declaration”), wherein the release of sex pheromone substances from a dispenser prepared in the manner of Example 1 as described in the specification of high-density polyethylene is compared with the release of sex pheromone substances from a dispenser

prepared in the manner of Example 1 as described in the specification of polyhydroxybutyric acid, a preferred material for the lower film as described by Neumann et al. The results, as shown in paragraph 4 of the Hojo Declaration, clearly show that a dispenser prepared from a material described by Neumann et al. in the manner of that of the present invention is very poor at releasing sex pheromone substances, does not provide sustained release of sex pheromone substances in the manner of the dispenser of the present invention and that it would not have been predicted that a sex pheromone release dispenser prepared entirely from (pheromone impermeable) lower film materials of Neumann et al. would provide for sustained release of sex pheromones as in the dispenser of the present invention. Applicants further add new claims 21 and 22, directed toward a dispenser made of polyolefin, a particular embodiment of a permeable chamber and membrane material.

In view of the foregoing, Applicants submit that the instant claims are directed toward nonobvious subject matter, and respectfully request that the instant rejection on this basis be withdrawn.

Claims 19 and 20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Neumann et al. in view of U.S. Patent No. 6,594,947 B2 ("Lingren et al."). The Examiner submits that it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the sex pheromones of Lingren et al. into the dispenser of Neumann et al. to arrive at the invention of the instant claims.

As set forth in the remarks above, the disclosures of Neumann et al. do not teach the sex pheromone sustained release dispenser of the invention. The disclosures of Lingren et al. are relied upon for the teaching of particular sex pheromone substances, and do not cure the deficiencies in the teachings of Neumann et al. regarding all the elements of the sex pheromone sustained release dispenser of the invention.

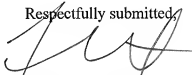
In view of the foregoing, Applicants submit that the instant claims are patentable over Neumann et al. in view of Lingren et al., in that the reference teachings, alone or in combination, do not teach all the elements of that which is instantly claimed, and respectfully request that the rejection on this basis be withdrawn.

CONCLUSION

Accordingly, Applicants submit that the present application is in condition for allowance and the same is earnestly solicited. Should the Examiner have any small matters outstanding of resolution, he is encouraged to telephone the undersigned at 919-854-1400 for expeditious handling.

In addition to an RCE, a petition for a two-month extension of time is required with the filing of this paper and is filed concurrently herewith. The Commissioner is authorized to charge Deposit Account No. 50-0220 in the amount of \$1,300.00, \$810.00 for the RCE and \$490.00 for a two-month extension of time. This amount is believed to be correct. However, the Commissioner is hereby authorized to charge any deficiency or credit any overpayment to Deposit Account No. 50-0220.

Respectfully submitted,



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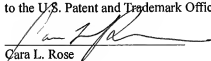
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I hereby certify that this correspondence is being transmitted via the Office electronic filing system in accordance with § 1.6(a)(4) to the U.S. Patent and Trademark Office on March 7, 2011.


Cara L. Rose